



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,371	08/19/2003	Douglas E. Ivers	IR-2966(ES)	4839

193 7590 12/29/2004

LORD CORPORATION  
PATENT & LEGAL SERVICES  
111 LORD DRIVE  
CARY, NC 27512

EXAMINER
----------

KRAMER, DEVON C

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/643,371

Applicant(s)

IVERS ET AL.

Examiner

Devon C Kramer

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 1-9 and 11-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al (4881723) in view of Imaizumi (4503951).

In re claim 1, Bauer et al discloses a pneumatic endstop surface effect damper, said pneumatic endstop surface effect damper comprised of an air piston housing 1 with an air piston inner housing wall defining an air piston inner chamber 9, an air piston 7 movable in an up stroke first direction and an opposite down stroke second direction inside said air piston housing and along said air piston inner housing wall, said air piston dividing said air piston inner chamber into a first upper variable volume chamber and a second lower variable volume chamber, said air piston including a lubricated viscous elastomer surface effect damper 16 which engages said inner wall and provides a surface effect damping of the piston moving along said inner wall, said air piston including a movable valve system (13) actuated by a change in the stroke direction of said air piston. Bauer provides a valve system that releases air pressure from the upper chamber when the piston moves on the up stroke, but lacks a valve system that totally releases the pressure from the lower chamber on the down stroke.

Art Unit: 3683

Imaizumi teaches a valve arrangement wherein said movable valve system releases an air pressure from said upper variable volume chamber when said piston changes from said up stroke first direction to said opposite down stroke direction and releases an air pressure from said lower variable volume chamber when said piston changes from said down stroke direction to said up stroke direction.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the damper of Bauer et al with a valve arrangement as taught by Imaizumi merely to provide significant damping in both the upstroke and down stroke.

Re claim 2, see chamber 23.

Re claims 3, 4, 14 and 21, see ring 16, which is inherently self-lubricating and greased in order to allow for the piston to travel up and down in the chamber.

Re claim 6, note that valve 13 slides.

Re claims 7-9, see above rejection re claims 3 and 4.

Re claim 11, see Fig. 2.

Re claim 12, see above rejection re claim 1.

Re claim 13, see chamber 23.

Re claims 16-18, see ring 13 and elastomer 16.

Re claim 19, see Fig. 2.

Re claim 20, see above rejection re claim 1.

Re claims 23-25, see ring 13 and elastomer 16.

Re claim 26, see above rejection re claim 1.

Art Unit: 3683

Re claim 27, see chamber 23.

Re claim 28, see above rejection re claim 1.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al (4881723) in view of Imaizumi (4503951) and further in view of Bell (US 6725983).

Bauer et al as modified by Imaizumi fails to disclose a check valve for providing inflow of atmospheric air. Bell discloses introducing atmospheric air into a damper for adjusting the characteristics of the damper. It would have been obvious to one of ordinary skill in the art to which the invention pertains at the time the invention was made to have provided a valve according to Bell in a damper according to Bauer et al as modified by Imaizumi in order to provide adjustability and account for leakage.

***Response to Arguments***

5) Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Art Unit: 3683

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kuwayama et al, Thompson, Herner, Davis and Paton all provide similar device to the instant application.

7) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DK

*Robert A. Siconolfi* 12/2/09  
ROBERT A. SICONOLFI  
PATENT EXAMINER